

WHAT IS CLAIMED IS:

1. A method for identifying an agent that modulates Gene95 activity, comprising:
 - 5 a) contacting a test compound with a genetic construct comprising a reporter gene operably linked to a Gene95 promoter under conditions supporting transcription of said reporter gene;
 - b) determining a change in transcription of the reporter gene as a result of said contacting
 - 10 wherein a change in said transcription indicates that the test compound is an agent that modulates Gene95 activity.
- 15 2. The method of claim 1 wherein the determined change in transcription of step (b) is a decrease in transcription.
3. The method of claim 1 wherein the determined change in transcription of step (b) is an increase in transcription.
4. The method of claim 1 wherein transcription is determined by
20 measuring the amount of an expression product encoded by said reporter gene.
5. The method of claim 4 wherein the expression product is an RNA.
- 25 6. The method of claim 4 wherein the expression product is a polypeptide.
7. The method of claim 1 wherein the reporter gene is in a liposome.
- 30 8. The method of claim 1 wherein the reporter gene is in an intact cell.
9. The method of claim 8 wherein the intact cell is a mammalian cell.

10. The method of claim 1 wherein the promoter is a mammalian Gene95 promoter.

5 11. The method of claim 10 wherein the Gene95 promoter is a human promoter.

12. The method of claim 11 wherein the human promoter comprises the promoter sequence in SEQ ID NO: 15.

10 13. The method of claim 10 wherein the Gene95 promoter is a mouse promoter.

14. The method of claim 13 wherein mouse promoter comprises the promoter sequence in SEQ ID NO: 14.

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15. The method of claim 1 wherein the reporter gene is not Gene95.

16. A method for identifying an agent that modulates a Gene95 activity, comprising:

20 a) contacting a test compound with a polypeptide encoded by a polynucleotide corresponding to *gene95* under conditions supporting an activity of said polypeptide; and

b) determining a change in the activity of the polypeptide as a result of said contacting;

25 wherein said change in activity identifies the test compound as an agent that modulates a Gene95 activity.

17. The method of claim 16 wherein the determined change in activity in step (b) is a decrease in activity.

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18. The method of claim 16 wherein the determined change in activity in step (b) is an increase in activity.

19. The method of claim 16 wherein the activity is measured by measuring the activity of an enzyme.

20. The method of claim 16 wherein the polypeptide is present in a lipid
5 bilayer.

21. The method of claim 20 wherein the lipid bilayer is part of a liposome.

10 22. The method of claim 16 wherein the polypeptide is part of an intact cell.

23. The method of claim 22 wherein the intact cell is a cell that has been engineered to comprise said polypeptide.

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24. The method of claim 22 wherein the intact cell is a recombinant cell that has been genetically engineered to express said polypeptide.

25. The process of claim 24 wherein the cell does not express said
20 polypeptide absent said engineering.

26. The process of claim 22 wherein said cell is a mammalian cell.

27. A method for identifying an HDL-enhancing agent, comprising
25 administering to an animal an effective amount of an agent found to have modulating activity using an assay of claim 1, 13, 24 or 49 and detecting an increase in plasma HDL activity in said animal due to said administering thereby identifying an agent useful in enhancing HDL activity.

30 28. The method of claim 27 wherein the animal exhibits low HDL activity prior to administering said agent.

29. The method of claim 27 wherein the HDL-enhancing activity is an increase in HDL level in said animal.

30. The method of claim 29 wherein the increase in HDL level is an increase in plasma HDL level.

31. The method of claim 29 wherein the animal is a human patient.

32. A method for treating a low-HDL related disorder in an animal afflicted with said disorder comprising administering to said animal an effective amount of an agent found to have HDL-enhancing activity using the assay of claim 27.

33. The method of claim 32 wherein the animal is a human patient.

34. The method of claim 32 wherein the disorder is selected from the group consisting of low HDL diseases, vascular diseases and dyslipidemias.

35. A method for producing test data with respect to the modulating activity of a test compound comprising:

(a) contacting a test compound with a Gene95 polynucleotide or Gene95 polypeptide, or a polynucleotide construct comprising a reporter gene operably linked to a Gene95 promoter, under conditions wherein said polynucleotide or reporter gene is being transcribed or said polypeptide is active,

(b) determining a change in the activity of said polypeptide or transcription of said polynucleotide or reporter gene as a result of said contacting, and

(c) producing test data with respect to the modulating activity of said test compound based on a change in the transcription of the determined polynucleotide or reporter gene or activity of the determined polypeptide wherein said change shows modulating activity.

36. A method for treatment or prophylaxis of cardiovascular disease comprising administering to a patient in need thereof, a therapeutic or prophylactic dose of a compound which modulates gene95 protein biological activity or expression.

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37. A method for identifying a therapeutic agent, comprising:

- a) contacting a chemical agent with a polynucleotide corresponding to *gene95* under conditions supporting expression of said polynucleotide;
 - b) determining a change in the expression of said polynucleotide as a
- 10 result of said contacting;
- wherein a change in said expression identifies a therapeutic agent.

38. A method for identifying a therapeutic agent that modulates the activity of a polypeptide that affects high density lipoprotein (HDL)-activity *in vivo*, comprising:

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- a) contacting a test compound with a polypeptide encoded by a polynucleotide corresponding to *gene95* under conditions supporting an activity of said polypeptide; and
 - b) determining a change in the activity of said polypeptide as a result
- 20 of said contacting;

wherein a change in said activity identifies the test compound as a therapeutic agent that modulates the activity of a polypeptide that affects HDL activity.

25 39. The method of claim 38 wherein said polypeptide corresponds to SEQ ID NO: 4.

40. The method of claim 38 wherein said polynucleotide corresponds to SEQ ID NO: 3

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41. An isolated polynucleotide comprising a polynucleotide sequence or the full complement of the polynucleotide sequence, wherein the polynucleotide sequence is at least 95% identical to SEQ ID NO: 3.

5 42. An isolated polynucleotide comprising a polynucleotide sequence that encodes a polypeptide having the amino acid sequence set forth in SEQ ID NO: 4.

10 43. An isolated polynucleotide comprising a polynucleotide that has the sequence set forth in SEQ ID NO: 3.

44. An isolated polypeptide comprising an amino acid sequence having at least 95% identity with the amino acid sequence set forth in SEQ ID NO: 4.

15 45. The isolated polypeptide of claim 44, wherein the isolated polypeptide comprises an the amino acid sequence having at least 95% identity with the amino acid sequence set forth in SEQ ID NO: 4.

20 46. An isolated polypeptide comprising the amino acid sequence set forth in SEQ ID NO: 4.

47. An isolated polypeptide consisting of the amino acid sequence set forth in SEQ ID NO: 4.

25 48. A nucleic acid vector comprising the isolated polynucleotide of claim 41.

49. A recombinant host cell comprising the vector of claim 48.

30 50. A method for producing the polypeptide of SEQ ID NO: 4 comprising culturing the host cell of claim 49 under conditions supporting production of the polypeptide.